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PATENT TRADEMARK OFFICE

March 19, 2002

Honorable Commission of Patents and Trademarks  
Washington, D.C. 20231

Re: Appl. No.10/078,927; Filed: February 19, 2002  
For: Cyclin Dependent Kinase 5 Phosphorylation of Disabled 1 Protein  
Inventors: Thomas Curran, *et al*  
Our Ref: SJ-01-0032

Sir:

The following documents are forwarded herewith for appropriate action by the  
U.S. Patent and Trademark Office:

1. Information Disclosure Statement (2 pages)
2. Patent and Trademark Office form PTO/SB/09A (3 pages)
3. Copies of references AA1 through AL2
4. A self-addressed and stamped return postcard

Regards,

*Shawn A. Hawkins*

Shawn A. Hawkins  
Reg. No. 50,318  
Associate Director, Office of Technology Licensing

:rdm

Enclosures



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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Curran *et al.*

Serial No. 10/078,927

Filed: February 19, 2002

For: **Cyclin Dependent Kinase 5**  
**Phosphorylation of Disabled 1**  
**Protein**

Art Unit:

Examiner: To be assigned

Atty Docket: SJ-01-0032

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Sir:

In accordance with 37 CFR §1.56, Applicants wish to call the Examiner's attention to the references cited on the attached form Patent and Trademark Office form PTO/SB/08A.

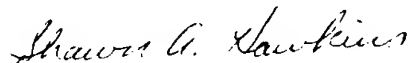
A copy of the listed references are enclosed herewith in accordance with 37 CFR §1.98(a)(2).

The Examiner is respectfully requested to consider the foregoing in relation to this application including an indication thereof by making the cited references of record herein and to indicate that the references were considered by initialing and returning a copy of the PTO-1449 form to Applicants.

In accordance with 37 C.F.R. §1.97(b)(1), no fee is believed to be required for consideration of this statement because it is being submitted within three months of the filing date for the above-captioned application.

The Commissioner is hereby authorized to charge any additional fees required, or to credit any overpayment, to Deposit Account No. 501968.

Respectfully submitted,



Shawn A. Hawkins  
Registration No. 50,318

St. Jude Children's Research Hospital  
332 North Lauderdale  
Memphis, TN 38105-2794  
Telephone: 901-495-2756

Date: March 19, 2002



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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/078,927
Filing Date	February 19, 2002
First Named Inventor	Curran
Art Unit	
Examiner Name	To be assigned
Attorney Docket Number	SJ-01-0032

Sheet 1 of 3

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published	T <sup>2</sup>
	AA1	LEW, J. <i>et al.</i> , "Purification and characterization of a novel proline-directed protein kinase from bovine brain," <i>J Biol Chem</i> 267:13383-13390 (1992)	
	AB1	MEYERSON, M., <i>et al.</i> "A family of human cdc-2 related protein kinases" <i>EMBO J</i> 11:2909-2917 (1992)	
	AC1	PATRICK, G.N., <i>et al.</i> "Conversion of p35 to p25 deregulates Cdk5 activity and promotes neurodegeneration," <i>Nature</i> 402:615-622 (1999)	
	AD1	RAKIC, P., <i>et al.</i> "Cortical development: View from neurological mutants two decades later," <i>Neuron</i> 14:1101-1104 (1995)	
	AE1	HOMAYOUNI, R., <i>et al.</i> "Cortical development: Cdk5 gets into sticky situations" <i>Current Biology</i> 10:R331-R334 (2000)	
	AF1	CHAE, T., <i>et al.</i> "Mice lacking p35, a Neuronal specific activator of Cdk5, display cortical lamination defects, seizures, and adult lethality" <i>Neuron</i> 18:29-42 (1997)	
	AG1	OHSHIMA, T., <i>et al.</i> "Targeted disruption of the cyclin-dependent kinase 5 gene results in abnormal corticogenesis, neuronal pathology and perinatal death" <i>PNAS</i> 93:11173-11178 (1996)	
	AH1	NIKOLIC, M., <i>et al.</i> "The cdk5/p35 kinase is essential for neurite outgrowth during neuronal differentiation" <i>Genes &amp; Development</i> 10:816-825 (1996)	
	AI1	PAGLINI, G., <i>et al.</i> "Evidence for the participation of the neuron-specific CDK5 activator p35 during laminin-enhanced axonal growth" <i>J Neuroscience</i> 18:9858-9869 (1998)	
	AJ1	NIKOLIC, M., <i>et al.</i> "The p35/Cdk5 kinase is a neuron-specific Rac effector that inhibits Pak1 activity" <i>Nature</i> 395:194-198 (1998)	
	AK1	NGUYEN, M. D., <i>et al.</i> "Deregulation of Cdk5 in a mouse model of ALS: Toxicity alleviated by perikaryal neurofilament inclusions" <i>Neuron</i> 30:135-147 (2001)	
	AL1	KWON, Y.T., <i>et al.</i> "Regulation of N-cadherin-mediated adhesion by the p35-Cdk5 kinase" <i>Current Biology</i> 10:363-372 (2000)	
	AM1	NIETHAMMER, M., <i>et al.</i> "NUDEL is a novel Cdk5 substrate that associates with LIS1 and cytoplasmic dynein" <i>Neuron</i> 28:697-711 (2000)	
	AN1	SONGYANG, Z., <i>et al.</i> "A structural basis for substrate specificities of protein Ser/Thr kinases: Primary sequence preference of casein kinases I and II, NIMA, phosphorylase kinase, calmodulin-dependent kinase II, Cdk5, and Erk1" <i>Mol Cell Biol</i> 16:6486-6493 (1996)	
	AO1	D'ARCANGELO, G., <i>et al.</i> "Reelin is a ligand for lipoprotein receptors" <i>Neuron</i> 24:471-479 (1999)	
	AP1	TROMMSDORFF, M., <i>et al.</i> "Interaction of cytosolic adaptor proteins with neuronal a polipoprotein E receptors and the amyloid precursor protein" <i>J Biol Chem</i> 273:33556-33560 (1998)	
	AQ1	GILMORE, E.C., <i>et al.</i> "Cyclin-dependent kinase 5-deficient mice demonstrate novel developmental arrest in cerebral cortex" <i>J Neuroscience</i> 18:6370-6377 (1998)	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**INFORMATION DISCLOSURE  
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**Complete if Known**

Application Number	10/078,927
Filing Date	February 19, 2002
First Named Inventor	Curran
Art Unit	
Examiner Name	To be assigned
Attorney Docket Number	SJ-01-0032

Sheet	2	of	3
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**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published	T <sup>2</sup>
	AR1	RICE, D.S. AND CURRAN, T., "Role of the reelin signaling pathway in central nervous system development" <i>Annu Rev Neurosci</i> 24:1005-1039 (2001)	
	AS1	D'ARCANGELO, G. AND CURRAN, T. "Reeler: new tales on an old mutant mouse" <i>BioEssays</i> 20:235-244 (1998)	
	AT1	HOWELL, B.W., et al. "Neuronal position in the developing brain is regulated by mouse disabled-1" <i>Nature</i> 389:733-737 (1997)	
	AU1	SHELDON, M., et al. "Scrambler and yotari disrupt the disabled gene and produce a reeler-like phenotype in mice" <i>Nature</i> 389:730-733 (1997)	
	AV1	TROMMSDORF, M., et al. "Reeler/disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and ApoE receptor 2" <i>Cell</i> 97:689-701 (1999)	
	AW1	KWON, Y.T. and Tsai, L-H., "A novel disruption of cortical development in p35-/- mice distinct from reeler" <i>J Comp Neur</i> 395:510-522 (1998)	
	AX1	KO, S., et al. "p35 and p39 are essential for cyclin-dependent kinase 5 function during neurodevelopment" <i>J Neuroscience</i> 21:6758-6771 (2001)	
	AY1	HOWELL, B.W., et al. "Reelin-induced tyrosine phosphorylation of disabled 1 during neuronal positioning" <i>Genes &amp; Development</i> 13:643-648 (1999)	
	AZ1	RICE, D. S., et al. "Disabled-1 acts downstream of reelin in a signaling pathway that controls laminar organization in the mammalian brain" <i>Development</i> 125:3719-3729 (1998)	
	AA2	TSAL, L-H., et al. "Activity and expression pattern of cyclin-dependent kinase 5 in the embryonic mouse nervous system" <i>Development</i> 119:1029-1040 (1993)	
	AB2	LEW, J., et al. "A brain-specific activator of cyclin-dependent kinase 5" <i>Nature</i> 371:423-426 (1994)	
	AC2	TSAL, L.H., et al. "p35 is a neural-specific regulatory subunit of cyclin-dependent kinase 5" <i>Nature</i> 371:419-423 (1994)	
	AD2	DHAVAN, R. and Tsai, L-H. "A decade of Cdk5" <i>Nat Rev Mol Cell Biol</i> 2:749-759 (2001)	
	AE2	HOMAYOUNI, R., et al. "Disabled-1 binds to the cytoplasmic domain of amyloid precursor-like protein-1" <i>J Neuroscience</i> 19:7507-7515 (1999)	
	AF2	OHSHIMA, T., et al. "Migration defects of cdk5 -/- neurons in the developing cerebellum is cell autonomous" <i>J Neuroscience</i> 19:6017-6026 (1999)	
	AG2	KESHVARA, L., et al. "Identification of reelin-induced sites of tyrosyl phosphorylation on disabled 1" <i>J Biol Chem</i> 276:16008-16014 (2001)	
	AH2	HOWELL, B.W., et al. "The disabled 1 phosphotyrosine-binding domain binds to the internalization signals of transmembrane glycoproteins and to phospholipids" <i>Mol Cell Biol</i> 19:5179-5188 (1999)	
	AI2	HOWELL, B.W., et al. "Dab1 tyrosine phosphorylation sites relay positional signals during mouse brain development" <i>Curr Biol</i> 10:877-885 (2000)	

Examiner Signature	Date Considered
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	AJ2	HOWELL, B.W., <i>et al</i> "Mouse disabled (mDab1): a Src binding protein implicated in neuronal development" <i>EMBO</i> 16:121-132 (1997)	
	AK2	OHSHIMA, T., <i>et al</i> . "Synergistic contributions of cyclin-dependent kinase 5/p35 and reelin/Dab1 to the positioning of cortical neurons in the developing mouse brain" <i>PNAS</i> 98:2764-2769 (2001)	
	AL2	WYNshaw-BORIS, A. AND GAMBELLO, M. J., "LIS1 and dynein motor function in neuronal migration and development" <i>Genes &amp; Development</i> 15:639-651 (2001)	

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